

# Smart Fiber Amplifier Units

## E3NX-FA

CSM\_E3NX-FA\_DS\_E\_16\_3

### A Smart Fiber Amplifier Unit with Ultra-stable Detection and Ultra-easy Setup



- Improved basic performance with 1.5 times the sensing distance and approx. 1/10th the minimum sensing object.\*
- Ultra-easy setup with Smart Tuning with a light intensity adjustment range expanded 20 times to 40,000:1. Optimum stable detection achieved with light intensity adjustment even for saturated incident light.
- White on black display characters for high visibility.
- Solution Viewer that shows the passing time and difference in incident levels and Change Finder that allows you to see display values even for fast workpieces.

\* Compared to the E3X-HD.



For the most recent information on models that have been certified for safety standards, refer to your OMRON website.



Refer to the **Safety Precautions** on page 17.

## Ordering Information

### Fiber Amplifier Units (Dimensions → pages 19 and 20)

| Type            | Connecting method     | Appearance                                                                          | Inputs/outputs      | Model        |              |
|-----------------|-----------------------|-------------------------------------------------------------------------------------|---------------------|--------------|--------------|
|                 |                       |                                                                                     |                     | NPN output   | PNP output   |
| Standard models | Pre-wired (2 m)       |  | 1 output            | E3NX-FA11 2M | E3NX-FA41 2M |
|                 | Wire-saving Connector |  | 1 output            | E3NX-FA6     | E3NX-FA8     |
| Advanced models | Pre-wired (2 m)       |  | 2 outputs + 1 input | E3NX-FA21 2M | E3NX-FA51 2M |
|                 | Wire-saving Connector |  | 1 output + 1 input  | E3NX-FA7     | E3NX-FA9     |
|                 |                       |                                                                                     | 2 outputs           | E3NX-FA7TW   | E3NX-FA9TW   |
|                 | M8 Connector          |  | 1 output + 1 input  | E3NX-FA24    | E3NX-FA54    |
|                 |                       |                                                                                     | 2 outputs           | ---          | E3NX-FA54TW  |

\*1. This type can prevent mutual interference for two units in the SHS2 mode.

| Type                                    | Connecting method                                        | Appearance                                                                         | Inputs/outputs | Model          |                |
|-----------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------|----------------|----------------|----------------|
|                                         |                                                          |                                                                                    |                | NPN output     | PNP output     |
| Infrared models                         | Pre-wired (2 m)                                          |   | 1 output       | E3NX-FAH11 2M  | E3NX-FAH41 2M  |
|                                         | Wire-saving Connector                                    |   | 1 output       | E3NX-FAH6      | E3NX-FAH8      |
| Analog output models                    | Pre-wired (2 m)                                          |   | 2 outputs      | E3NX-FA11AN 2M | E3NX-FA41AN 2M |
| Model for Sensor Communications Unit *2 | Connector for Sensor Communications Unit                 |   | ---            | E3NX-FA0       |                |
|                                         | Connector for Sensor Communications Unit Pre-wired (2 m) |  | 1 output       | E3NX-FA10 2M   | E3NX-FA40 2M   |

\*2. A Sensor Communications Unit is required if you want to use the Fiber Amplifier Unit on a network.

## Accessories (Sold Separately)

**Wire-saving Connectors (Required for models for Wire-saving Connectors.)** (Dimensions → page 21)

Connectors are not provided with the Fiber Amplifier Unit and must be ordered separately. Note: Protective stickers are provided.

| Type             | Appearance                                                                          | Cable length | No. of conductors | Model    | Applicable Fiber Amplifier Units                 |
|------------------|-------------------------------------------------------------------------------------|--------------|-------------------|----------|--------------------------------------------------|
| Master Connector |  | 2 m          | 4                 | E3X-CN21 | E3NX-FA7<br>E3NX-FA7TW<br>E3NX-FA9<br>E3NX-FA9TW |
| Slave Connector  |  |              | 2                 | E3X-CN22 |                                                  |
| Master Connector |  |              | 3                 | E3X-CN11 | E3NX-FA6<br>E3NX-FA8<br>E3NX-FAH6<br>E3NX-FAH8   |
| Slave Connector  |  |              | 1                 | E3X-CN12 |                                                  |

**Sensor I/O Connectors (Required for models for M8 Connectors.)** (Dimensions → page 21)

Connectors are not provided with the Fiber Amplifier Unit and must be ordered separately.

| Size | Cable          | Appearance                                                                                   | Cable type |        | Model           |
|------|----------------|----------------------------------------------------------------------------------------------|------------|--------|-----------------|
| M8   | Standard cable | Straight  | 2m         | 4-wire | XS3F-M421-402-A |
|      |                |                                                                                              | 5m         |        | XS3F-M421-405-A |
|      |                | L-shaped  | 2m         |        | XS3F-M422-402-A |
|      |                |                                                                                              | 5m         |        | XS3F-M422-405-A |